

## Eastern Equine Encephalitis Virus (EEEV) 3/2010

**Definition:** Eastern Equine Encephalitis Virus, also known as Triple E and EEE, is a zoonotic alphavirus found in eastern US. The virus is carried through a bird-mosquito cycle. There are two types of mosquito's involved, the first feeds on birds, the second, called a bridge-vector, carries the virus from the bird population to mammals, primarily horses. The mortality rate among horses is 70 — 90%.

**EEEV is a rarely found in humans. Children under the age of 15 appear to be at higher risk. Some people infected with EEEV are asymptomatic. The incubation period is 4 — 10 days. Illness can result in either systemic or encephalitic disease. Symptoms for the mildest form, systemic, includes: fever, malaise, myalgia, and arthralgia, lasting 1 — 2 weeks. The symptoms of the more severe form, encephalitic, include fever, headache, irritability, drowsiness, anorexia, vomiting, diarrhea, convulsions and coma. About 30 — 35% of infected individuals die as a result of the disease and about half of the survivors have significant neurological sequela.**

**Treatment:** There is no treatment for EEEV. Symptomatic treatment may be given.

**Prevention:** There is a vaccine for horses. For humans, the best prevention is avoidance of mosquitoes in affected areas. This includes use of mosquito repellant, wearing loose clothing which covers the skin, and staying indoors during high mosquito activity.

**Recommendations for insect repellant are:**

- **AEET**
- **Picaridin**
- **Oil of Lemon Eucalyptus or PMD (a biopesticide)**
- **1R3535**

**Repellent should be applied to exposed skin and clothing as directed on the product label. It should not be applied to wounds or irritated skin and eyes and mouth should be avoided. When returning indoors, the exposed areas should be washed with soap and water.**

**Role of the School Nurse:**

- 1. Encourage students and staff to wear protective clothing (long sleeved shirts, long pants and socks) and use effective mosquito repellant outdoors when mosquitoes are active.**
- 2. Monitor the geographic areas where EEEV has been found and alert school administrators when the school is in this area.**
- 3. Work with school custodial staff to remove standing water in the school area.**

**Resources:**

**Centers for Disease Control and Prevention:**

**<http://www.cdc.gov/EasternEquineEncephalitis/index.html>**

**Maine Center for Disease Control and Prevention:**  
[www.maine.gov/dhhs/boh/ddc/epi/vector-borne/eee/index.shtml](http://www.maine.gov/dhhs/boh/ddc/epi/vector-borne/eee/index.shtml)

**Insect repellent guide:** [www.maine.gov/DHHS/boh/ddc/epi/vector-borne/CDC-repellent.pdf](http://www.maine.gov/DHHS/boh/ddc/epi/vector-borne/CDC-repellent.pdf)

**Maine Department of Education:**  
[www.maine.gov/tools/whatsnew/index.php?topic=edu letters&id=79377&v=article](http://www.maine.gov/tools/whatsnew/index.php?topic=edu%20letters&id=79377&v=article)